

### **III) IN THE CLAIMS:**

1-32 (Cancelled).

33. (New) A method of connecting a plurality of computers over a computer network for data transfer amongst the computers, comprising the steps of:

a) using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index;

b) the requesting computer communicating with routing computers in the plurality of computers, said routing computers each having a table stored in memory, each table comprising a plurality of records, each of said records comprising at least part of an association of an index to a pointer which identifies an information computer on the network, by transmitting said machine-read index to at least one of said routing computers and receiving pointer information from said routing computers that correlates the machine-read index to a pointer which identifies an information computer on the network;

c) the requesting computer using the pointer information received from said routing computers to establish communication with the information computer identified thereby and request information from said information computer; and

d) the information computer transmitting information to the requesting computer based on the information request.

34. (New) The method of claim 33 wherein said routing computers comprise:

a first routing computer having a first table stored in a first memory, and

a second routing computer having a second table stored in a second memory,

said first table comprising a set of first records, each of said first records associating an index with a label,

said second table comprising a set of second records, each of said second records associating a label with a pointer,

and wherein an index is correlated with a label which is then correlated with a pointer by accessing both of said first table and said second table.

35. (New) The method of claim 34 wherein

said data carrier is a bar code symbol,

said index is a Uniform Product Code (UPC) encoded in said bar code symbol,

said label is a product name corresponding to said UPC, and

said pointer is a URL indicating the location of a resource on the network having information related to the product,

whereby the UPC is used to determine the associated product name in the first table and the product name obtained from the first table is used to determine the associated URL in the second table.

36. (New) The method of claim 34 wherein

said data carrier is a bar code symbol,

said index is a Uniform Product Code (UPC) encoded in said bar code symbol,

said label is a manufacturer corresponding to said UPC, and

said pointer is a URL indicating the location of a resource on the network having information related to the manufacturer,

whereby the UPC is used to determine the associated manufacturer in the first table and the manufacturer obtained from the first table is used to determine the associated URL in the second table.

37. (New) The method of claim 33 wherein the step of using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index comprises the step of reading a light pattern emanating from an object and demodulating the light pattern to obtain the index.

38. (New) The method of claim 37 wherein the step of reading a light pattern emanating from an object and demodulating the light pattern to obtain the index comprises scanning a bar code symbol encoded with the index.

39. (New) The method of claim 37 wherein the step of reading a light pattern emanating from an object and demodulating the light pattern to obtain the index comprises using optical character recognition techniques.

40. (New) The method of claim 33 wherein the step of using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index comprises receiving a signal emanating from an article of commerce, the signal being modulated with the index.

41. (New) The method of claim 33 wherein the step of using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index comprises inputting into the computer input device an audible signal modulated with information correlated to the

index.

42. (New) The method of claim 41 wherein the step of inputting into the user computing device an audible signal modulated with information correlated to the index comprises the use of voice recognition techniques.

43. (New) The method of claim 33 wherein the step of using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index comprises inputting into the user computing device an RF signal modulated with information correlated to the index.

44. (New) The method of claim 33 wherein the step of using a computer input device associated with a requesting computer of the plurality of computers to automatically machine-read a data carrier modulated with an index comprises accessing a magnetic card with a magnetic card reader.

45. (New) The method of claim 33 wherein the pointer comprises a network address.

46. (New) The method of claim 33 wherein the pointer comprises a Uniform Resource Locator.

47. (New) The method of claim 33 wherein the pointer comprises the name of a remote computer.

48. (New) The method of claim 33 wherein the pointer comprises an IP address.

49. (New) The method of claim 33 wherein the step of using the pointer information received from said routing computers to establish communication with the information computer identified thereby is executed automatically by the requesting computer without user intervention.

50. (New) The method of claim 49 wherein the automatic communication by the requesting computer with the information computer is executed by a web browser program running on the requesting computer.

51. (New) The method of claim 33 wherein the step of using the pointer information received from said routing computers to establish communication with the information computer identified thereby is executed by a user selecting hypertext link returned to the requesting computer.

52. (New) The method of claim 33 wherein the network is a wide area network.

53. (New) The method of claim 52 wherein the wide area network is the Internet.

54. (New) The method of claim 52 wherein the wide area network is a proprietary online service.

55. (New) A networked computer system comprising a plurality of computers selectively interconnected to a computer network, said plurality of computers comprising:

a. a requesting computer comprising a computer input device

adapted to automatically machine-read a data carrier modulated with an index;

b. a plurality of routing computers, each of said routing computers comprising means for storing a table comprising a plurality of records, each of said records comprising at least part of an association of an index to a pointer which identifies an information computer on the network; and

c. an information computer comprising means for transmitting information to the requesting computer based on an information request by the requesting computer;

wherein the requesting computer

transmits the machine-read index to at least one of the routing computers and receives pointer information from the routing computers that correlates the machine-read index to a pointer which identifies the information computer on the network, and

uses the pointer to request information from an information computer identified thereby.

56. (New) The system of claim 55 wherein the routing computers comprise:

a first routing computer having a first table stored in a first memory, and

a second routing computer having a second table stored in a second memory,

said first table comprising a set of first records,  
each of said first records associating an index with a  
label,

said second table comprising a set of second records,  
each of said second records associating a label with a  
pointer,

and wherein an index is correlated with a label which  
is then correlated with a pointer by accessing both of  
said first table and said second table.

57. (New) The system of claim 55 wherein

said data carrier is a bar code symbol,

said index is a Uniform Product Code (UPC) encoded in  
said bar code symbol,

said label is a product name corresponding to said  
UPC, and

said pointer is a URL indicating the location of a  
resource on the network having information related to  
the product,

whereby the UPC is used to determine the associated  
product name in the first table and the product name  
obtained from the first table is used to determine the  
associated URL in the second table.



58. (New) The system of claim 55 wherein

said data carrier is a bar code symbol,

said index is a Uniform Product Code (UPC) encoded in  
said bar code symbol,

said label is a manufacturer corresponding to said  
UPC, and

said pointer is a URL indicating the location of a  
resource on the network having information related to  
the manufacturer,

whereby the UPC is used to determine the associated  
manufacturer in the first table and the manufacturer  
obtained from the first table is used to determine the  
associated URL in the second table.

59. (New) The system of claim 55 wherein the computer input  
device comprises means for reading a light pattern  
emanating from an object and demodulating the light pattern  
to obtain the index.

60. (New) The system of claim 59 wherein the means for  
reading a light pattern emanating from an object and  
demodulating the light pattern to obtain the index  
comprises means for scanning a bar code symbol encoded with  
the index.

61. (New) The system of claim 59 wherein the means for  
reading a light pattern emanating from an object and

demodulating the light pattern to obtain the index comprises means for using optical character recognition techniques.

62. (New) The system of claim 55 wherein the input device is adapted to receive a signal emanating from an article of commerce, the signal being modulated with the index.

63. (New) The system of claim 55 wherein the input device comprises means for inputting into the user computing device an audible signal modulated with information correlated to the index.

64. (New) The system of claim 63 wherein the means for inputting into the user computing device an audible signal modulated with information correlated to the index is configured to utilize voice recognition techniques.

65. (New) The system of claim 55 wherein the input device comprises means for inputting an RF signal modulated with information correlated to the index.

66. (New) The system of claim 55 wherein the input device comprises means for reading a magnetic stripe card.

67. (New) The system of claim 55 wherein the pointer comprises a network address.

68. (New) The system of claim 55 wherein the pointer comprises a Uniform Resource Locator.

69. (New) The system of claim 55 wherein the pointer

comprises the name of a remote computer.

70. (New) The system of claim 55 wherein the pointer comprises an IP address.

71. (New) The system of claim 55 wherein the requesting computer requests information from the information computer automatically without user intervention after receiving the pointer information from the routing computers.

72. (New) The system of claim 71 wherein the automatic communication by the requesting computer with the information computer is executed by a web browser program running on the requesting computer.

73. (New) The system of claim 55 wherein the requesting computer requests information from the information computer by a user manually selecting a hypertext link returned to the requesting computer by the routing computers.

74. (New) The system of claim 55 wherein the network is a wide area network.

75. (New) The system of claim 74 wherein the wide area network is the Internet.

76. (New) The system of claim 74 wherein the wide area network is a proprietary online service.